

less of the class of students concerned, the chief object of botanical instruction in an elementary course should be to teach the fundamental facts and principles of botany and to relate these to problems of practical interest.

A list of the chapter headings will suggest the nature of the topics treated: (*Introduction*) the nature and subdivisions of botany; a general view of plants; (*Part I*) flowers; pistils and stamens; seeds and fruits; germination of seeds, seedlings; cells and tissues; roots; stems; buds (including growth of stems, pruning, propagation by stems); leaves; (*Part II*) thallophytes (separate chapters on algae, myxomycetes and bacteria, fungi); bryophytes; pteridophytes; spermatophytes (two chapters); classification of angiosperms, and families of economic importance; ecological classification of plants; variation; heredity; evolution.

The present edition differs from the first in that several portions of the text have been rewritten, the chapter on variation added, and many of the illustrations replaced by new or improved ones.

GEORGE E. NICHOLS

Trees of Indiana

The second edition, completely rewritten, of Chas. C. Deam's *Trees of Indiana* * is an extraordinarily satisfactory publication. It is gratifying to consider that thousands of students, farmers, amateur botanists, and tree-lovers in general throughout that state may profit by such carefully written work from the pen of Indiana's most thorough student of the local flora.

Deam has recognized 132 species and 20 varieties of forms. Each of the former and one of the latter is illustrated by a full-page half-tone plate, photographed from a herbarium sheet. Since the sheets were chosen from Deam's own carefully prepared herbarium, the results are excellent and in most cases far better than one would naturally expect. Either fruits or flowers, or both, and frequently bark, are represented. The

* The Department of Conservation, State of Indiana, Indianapolis, 1921, 317 pages, 137 plates.

method leaves something to be desired in certain cases, where the flowers or fruit illustrate important specific differences, but it must be remembered that the book is prepared for the amateur and not the professional botanist.

The nomenclature "attempted" is that of the International Code. Synonymy is omitted. Descriptions are carefully drawn from Indiana material. The general distribution of each species is indicated and ranges within the state are discussed in such detail that the book will be an important source of information for phytogeographers. A third paragraph includes general notes, largely of a popular nature, on the abundance, uses, and local names of the plant and other miscellaneous information.

The genus *Salix* is contributed by C. R. Ball and the family *Malaceae* by W. W. Eggleston.

The whole treatment is conservative and impresses one as having been carried out with extreme care and consequently reliable results. The attitude of the author toward "splitting" is clearly shown and may be indicated here by two quotations:

"Nieuwland separates a variety from the smooth forms which he calls *Sassafras albida* variety *glauca* and reports it as occurring in the counties in the vicinity of Lake Michigan. The writer has at hand 46 specimens from 41 counties in Indiana, including all of the Lake Michigan Counties, and he has not been able to find a single character that is constant enough to make a division of our forms."

"While Sargent's key to *Tilia* quite distinctly separates the species and varieties, yet when specimens are collected from an area where the species overlap and seem to intergrade, the task of referring a specimen to the proper species or variety is not an easy one."

The same care has been used in excluding 23 reported species, each of which has been the subject of detailed investigation.

The book closes with a list of measurements of large specimens of Indiana trees, a table of specific gravities of woods, two state maps, and an index.

Typographical errors are very few, print and paper are good, half-tones are well executed, and the cloth binding is substantial. Both the author and the Department of Conservation are to be congratulated on the work.

H. A. GLEASON

PROCEEDINGS OF THE CLUB

MEETING OF FEBRUARY 25

Announcement was made of the death on January 30 of Dr. George T. Stevens, of this city. Dr. Stevens had done much to make general an interest in botany, especially through his illustrated "Guide to the Wild Flowers of the Northeastern United States." Dr. W. A. Merrill, under the title of Notes on Fungi, remarked on the recent finding of underground fungi, chiefly truffles in the United States, and on their method of collecting them. He also called attention to a curious double specimen of the cultivated mushroom, an illustrated account of which has since appeared in *Mycologia* 13: 119-122.

Mr. R. S. Williams gave an account of mosses recently received from the district of Kaietur Falls, in British Guiana. Of eleven species, one, a *Macromitrium*, proved to be undescribed.

Dr. J. K. Small discussed the species of palmetto, *Sabal*, in the south giving the history of the discovery of each, and showing specimens of his own collecting.

MEETING OF MARCH 6

Dr. H. A. Gleason gave an illustrated lecture on the Big Trees of California. He showed an extensive series of views and described the vast size and something of the past history of *Sequoia gigantea*. He strongly urged the need of bringing more of these giants into park reserves.